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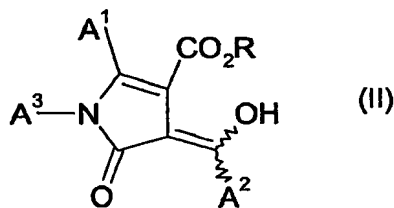
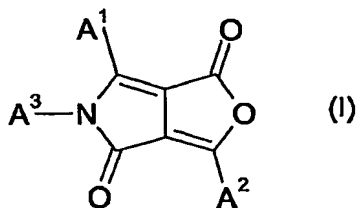
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(54) Title: PROCESS FOR THE PREPARATION OF FUOPYRROLES



(57) Abstract: The present invention relates to a process for the preparation of fuopyrroles of the general formula (I), compris-  
ing (a) heating a compound of the formula (II) under microwave irradiation optionally in the presence of an inert solvent, wherein  
A<sup>1</sup> and A<sup>2</sup> are C<sub>1</sub>-C<sub>18</sub>alkyl, C<sub>2</sub>-C<sub>18</sub>alkenyl, C<sub>2</sub>-C<sub>18</sub>alkynyl, C<sub>5</sub>-C<sub>8</sub>cycloalkyl, C<sub>5</sub>-C<sub>8</sub>cycloalkenyl, aryl or heteroaryl, A<sup>3</sup> is hydrogen,  
C<sub>1</sub>-C<sub>18</sub>alkyl, cyanomethyl, Ar<sup>3</sup>, -CR<sup>30</sup>R<sup>31</sup>-(CH<sub>2</sub>)<sub>m</sub>-Ar<sup>3</sup> or Y- R<sup>32</sup>, wherein R<sup>30</sup> and R<sup>31</sup> independently of each other stand for hydro-  
gen or C<sub>1</sub>-C<sub>4</sub>alkyl, or phenyl which can be substituted up to three times with C<sub>1</sub>-C<sub>4</sub>alkyl, Ar<sup>3</sup> stands for aryl, C<sub>5</sub>-C<sub>8</sub> cloalkyl, C<sub>5</sub>-C<sub>8</sub>  
cycloalkenyl or heteroaryl, which can be substituted one to three times with C<sub>1</sub>-C<sub>8</sub>alkyl, C<sub>1</sub>-C<sub>8</sub>alkoxy, halogen or phenyl, which can  
be substituted with C<sub>1</sub>-C<sub>8</sub>alkyl or C<sub>1</sub>-C<sub>8</sub>alkoxy one to three times, and m stands for 0, 1, 2, 3 or 4, R is C<sub>1</sub>-C<sub>18</sub>alkyl, in particular  
C<sub>1</sub>-C<sub>4</sub>alkyl, aryl, in particular phenyl, or alkyl, in particular benzyl, which can be substituted one to three times with C<sub>1</sub>-C<sub>8</sub>alkyl,  
C<sub>1</sub>-C<sub>8</sub>alkoxy, or halogen, Y is -C(O)-, -C(O)O-, -C(O)NH-, -SO<sub>2</sub>NH- or -SO<sub>2</sub>- and R<sup>32</sup> is C<sub>1</sub>-C<sub>18</sub>alkyl, Ar<sup>3</sup>, or aralkyl. The fuopy-  
rroles of the general formula (I) can be obtained in high yield and high purity by the process of the present invention.

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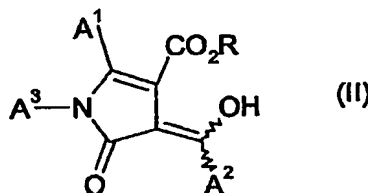
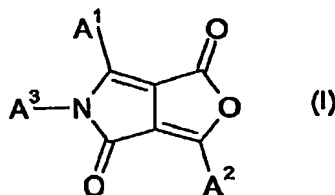
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(57) Abstract: The present  
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(a) heating a compound of the  
formula (II) under microwave  
irradiation optionally in the  
presence of an inert solvent,  
wherein A<sup>1</sup> and A<sup>2</sup> are C<sub>1</sub>-C<sub>18</sub>alkyl,  
C<sub>2</sub>-C<sub>18</sub>alkenyl, C<sub>2</sub>-C<sub>18</sub>alkynyl,

C<sub>5</sub>-C<sub>8</sub>cycloalkyl, C<sub>5</sub>-C<sub>8</sub>cycloalkenyl, aryl or heteroaryl, A<sup>3</sup> is hydrogen, C<sub>1</sub>-C<sub>18</sub>alkyl, cyanomethyl, Ar<sup>3</sup>, -CR<sup>30</sup>R<sup>31</sup>-(CH<sub>2</sub>)<sub>m</sub>-Ar<sup>3</sup> or  
Y-R<sup>32</sup>, wherein R<sup>30</sup> and R<sup>31</sup> independently of each other stand for hydrogen or C<sub>1</sub>-C<sub>4</sub>alkyl, or phenyl which can be substituted up to  
three times with C<sub>1</sub>-C<sub>4</sub>alkyl, Ar<sup>3</sup> stands for aryl, C<sub>5</sub>-C<sub>8</sub> cloalkyl, C<sub>5</sub>-C<sub>8</sub>cycloalkenyl or heteroaryl, which can be substituted one to  
three times with C<sub>1</sub>-C<sub>8</sub>alkyl, C<sub>1</sub>-C<sub>8</sub>alkoxy, halogen or phenyl, which can be substituted with C<sub>1</sub>-C<sub>8</sub>alkyl or C<sub>1</sub>-C<sub>8</sub>alkoxy one to three  
times, and m stands for 0, 1, 2, 3 or 4, R is C<sub>1</sub>-C<sub>18</sub>alkyl, in particular C<sub>1</sub>-C<sub>4</sub>alkyl, aryl, in particular phenyl, or aralkyl, in particular  
benzyl, which can be substituted one to three times with C<sub>1</sub>-C<sub>8</sub>alkyl, C<sub>1</sub>-C<sub>8</sub>alkoxy, or halogen, Y is -C(O)-, -C(O)O-, -C(O)NH-,  
-SO<sub>2</sub>NH- or -SO<sub>2</sub>- and R<sup>32</sup> is C<sub>1</sub>-C<sub>18</sub>alkyl, Ar<sup>3</sup>, or aralkyl. The fuopyrroles of the general formula (I) can be obtained in high yield  
and high purity by the process of the present invention.